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Adjusted Allocation: 0.00

Remaining: -726,234.00
Please respond to the prompts or questions in the areas listed below in a narrative form.

A) APPLICANT INFORMATION - General Information

1. Project Title:
   Southern Ohio Advanced Manufacturing Initiative (SO-AMI)

2. Project Summary: Please limit your responses to no more than three sentences.
   Scioto Co CTC and workforce partners will expand advanced manufacturing pathway career-technical learning experiences for 7-12th graders.
   This is an ultra-concise description of the overall project. It should only include a brief description of the project and the goals it hopes to achieve.

3. Estimate of total students at each grade level to be directly impacted each year.
   This is the number of students that will receive services or other benefits as a direct result of implementing this project. This does not include students that may be impacted if the project is replicated or scaled up in the future. It excludes students who have merely a tangential or indirect benefit (such as students having use of improved facilities, equipment etc. for other uses than those intended as a part of the project). The Grant Year is the year in which funds are received from the Ohio Department of Education. Years 1 through 5 are the sustainability years during which the project must be fiscally and programmatically sustained.

<table>
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<tr>
<th>Grant Year</th>
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<td></td>
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<td>5</td>
<td>6</td>
<td>2507</td>
</tr>
</tbody>
</table>
4. Explanation of any additional students to be impacted throughout the life of the project. 
This includes any students impacted or estimates of students who might be impacted through future scale-ups or replications that go beyond the scope of this project.

Since there are no advanced manufacturing training centers that service high school students within 100 miles of Scioto County Career Technical Center (SCCTC), we anticipate significant interest from joint vocational schools (JVS) within 8 counties. There are 5 JVS serving these counties. Combined, these JVS serve 31 districts and over 2000 students. As SCCTC advanced manufacturing initiative expands, all of these districts and students can be impacted by this new opportunity for students. In addition to K12 youth, each JVS district serves adult workforce populations, vastly expanding the programs reach.

5. Lead applicant primary contact: - Provide the following information:

First and last name of contact for lead applicant
Stan Jennings

Organizational name of lead applicant
Scioto County Career Technical Center

Address of lead applicant
951 Vern Riffe Drive Lucasville, OH 45648

Phone Number of lead applicant
(740) 259-6864

Email Address of lead applicant
stan.jennings@sciototech.org

Community School Applicants: After your application has been submitted and is in Authorized Representative Approved status an email will be sent to your sponsoring entity automatically informing the sponsor of your application.

6. Are you submitting your application as a consortium? - Select one checkbox below

☐ Yes
☐ No

If you are applying as consortium, please list all consortium members by name on the "Consortium Member" page by clicking on the link below. If an educational service center is applying as the lead applicant for a consortium, the first consortium member entered must be a client district of the educational service center.

Add Consortium Members

7. Are you partnering with anyone to plan, implement, or evaluate your project? - Select one checkbox below

☐ Yes
☐ No

If you are partnering with anyone, please list all partners (vendors, service providers, sponsors, management companies, schools, districts, ESCs, IHEs) by name on the "Partnering Member" page by clicking on the link below.

Add Partnering Members

B) PROJECT DESCRIPTION - Overall description of project and alignment with goals

8. Describe the innovative project: - Provide the following information

The response should provide a clear and concise description of the project and its major components. The following questions will address specific outcomes and measures of success.

a. The current state or problem to be solved; and

Scioto County, Ohio has a long history of manufacturing & a strong transportation infrastructure (rail, highway, river) to transport large quantities of raw materials and finished product and components affordably. Scioto County CTC (SCCTC) offers high-school, adult, and higher ed programs in industrial maintenance, CNC programming/operation, building property maintenance, carpentry, electricity, welding, engineering, auto technology and information technology. But, even though, recent data (www.ohiohired.org) reports Ohio is short 60,000 manufacturing workers for its advanced manufacturing workforce, no one in the region offers advanced manufacturing certification. The closest program is 100 miles away, making it a nearly impossible goal for southern Ohio youth. Scioto CTC students (male and female) need access to academic & career technical programs integrating industry recognized credentials/certifications in advanced manufacturing with dual enrollment opportunities and stackable certificates. FY14, SCCTC nontraditional (female) participation & completion rates were 17.63% & 15.61% respectively. It is important to bust the myth that advanced manufacturing is a male-driven industry. All students must be able to program, utilize industry standard equipment & demonstrate academic/workforce competencies. High school students graduating with such credentials have greater post-secondary attainment & thrive in high skilled jobs. Successful transition into advanced manufacturing workforce
also demands industry pre-apprenticeship where students have strong, direct adult mentoring from education and business leaders. Such exposure, however, cannot only occur in grades 11-12. It must begin by 7th grade with introductions to growing manufacturing career pathways and include foundational skill building using a competency based model that embeds industry-certified demonstrations of STEM knowledge applied in real-world settings.

b. The proposed innovation and how it relates to solving the problem or improving on the current state.

SO-AMI is a regional response to credential future workers for advanced/specialized manufacturing jobs. Southern Ohio students in grades 7-16 will have cutting edge opportunities to explore careers, earn credentials/college credits & build critical workforce skills to thrive in Ohio's new in-demand career fields. SCCTC partners include General Electric, Bellissio Foods, InfraMetals, OSCO Industries, Southern State Community College, IST & Tri-Rivers CTC/ RAMTEC. SO-AMI will design/implement a new advanced/specialized manufacturing career pathway that expands career exploration, academic & career technical learning for 1500 Scioto Co 7-12th grade students (male and female) to prepare for careers in these high demand So Ohio fields. Replicate RAMTEC's competency based advanced manufacturing certification curriculum model in SCCTC pre-engineering Project Lead the Way (PLTW), welding, industrial maintenance, and electricity programs, but link it to So Ohio workforce needs. Complete required training & purchase industry standard equipment. -Create new stackable credentials under National Association of Manufacturers endorsed Manufacturing Competency Based Skills Certification System -Offer new College Credit Plus courses so students can earn up to 30 hours of college credit toward Advanced Manufacturing Associates degree. -Expand blended career exploration opportunities for all 7-10th grader in member districts using PLTW pre-engineering programs: provide e-learning PLTW resources to each home school & "hands-on" activities at SCCTC. Host 8th grade SCCTC tours to learn about advanced manufacturing &10th grade "Hands On Days" in the advanced manufacturing labs so students can discover new career opportunities in advanced manufacturing pathways. -Target increased non-traditional participation in engineering for female students by adding a female only PLTW level 1 class (and continue to offer mixed gender class). All female PTLW 1 students would visit, learn, and receive mentoring from successful female professionals in engineering & advanced manufacturing. -Provide high quality PD to SCCTC instructors to a) obtain required industry certifications required to teach new pathways; b) facilitate College Credit Plus courses at SCCTC increasing number of college credits HS students can earn; c) move toward "College Now" model so HS students can earn diploma and associate degree by graduation. Research/Underlying Rationale linked to actual project described. RAMTEC's investments in training & education meet full range of skills local industries need & engages industry partners to ensure greatest return on investment. Current research shows students who graduate HS with college credit have 30% greater chance of graduating from college compared to peers. FY14, SCCTC nontraditional (female) participation & completion rates were 17.63% & 15.61% respectively. It is important to bust the myth that advanced manufacturing is a male-driven industry. Instructional/organizational changes. SCCTC staff will use blended model (E-learning, real life simulators, hands-on) to build-operate robots, design-build parts & share across network. Teachers will integrate RAMTEC across many CTC programs & cross train students, offering new stackable certifications & college credits. Communication/Stakeholder Engagement/Interdependence Industry-higher ed partners will participate on advisory boards to make sure program meets state guidelines & local industry needs. SO-AMI is aligned to SCCTC Board’s vision & expectations. Project Team will regularly update advisory board and school board on project outcomes & activities. (354) Sustainability SCCTC requests $728,234, and will have $15,000 in sustainable costs. It is reducing costs with net savings $113,520 by 2022 so it is sustainable without additional income and shows savings.

9. Select which (up to four) of the goals your project will address. For each of the selected goals, please provide the requested information to demonstrate your innovative project. - (Check all that apply)

a. Student achievement

i. List the desired outcomes.

Examples: fewer students retained at 3rd grade, increase in graduation rate, increased proficiency rate in a content area, etc.

Long Term Outcome: Scioto County CTC (SCCTC) students, in particular -female students- will significantly increase workforce and college readiness for in-demand advanced manufacturing career pathways. Goal 1: Increase % HS students (male and female) earning industry credentials preparing them for advanced manufacturing career fields. Goal 2: Increase # HS students (male and female) earning College Credit Plus credits that can lead to associate’s degree in advanced manufacturing career field. Goal 3: Increase # HS students grades 9-10 (male and female) who complete adv manufacturing CTE courses at home schools. Goal 4: # MS students grades 7-8 (male and female) exposed to advanced manufacturing career exploration.

ii. What assumptions must be true for this outcome to be realized?

Examples: early diagnosis and intervention are needed to support all children learning to read on grade level; project-based learning results in higher levels of student engagement and learning, etc.

Assumption 1: RAMTEC model will address local workforce need to increase advanced manufacturing training opportunities. Research: The key to student achievement innovation is individual competency mastery, not "seat time" (Measuring Mastery, AEI 2015). Scioto County CTC chose RAMTEC model because its cutting-edge, competency-based learning is recognized by Society of Manufacturing Educational Foundation, Ohio Economic Development Association, Governor Kasich, and the Ohio Department of Education. Students graduate with industry recognized credentials/certifications & college credits in advanced manufacturing that lead to postsecondary attainment & ensures academic rigor to compete/thrive with the demand of these new high skilled jobs. When Kasich administration toured Tri-Rivers to evaluate RAMTEC effectiveness, Lt. Governor Taylor stated, "We want to make sure every kid in Ohio has this kind of opportunity". Gov. Kasich said, "We need kids interested in what they're doing."(Marion Star, 2014). In March 2015, Dr. Susan Tave-Zelman, executive director of the Straight-A Fund stated, " RAMTEC was attractive to the Straight-A Fund because it's a customizable approach. Participants can build local partnerships and take local needs into account. The department is hoping to see it expand beyond the nine centers into other geographic areas and industries," (Crain Communications, 2015). Assumption 2: Advanced Manufacturing lacks female workers. Women make up nearly half of the U.S. workforce, but the number of females in manufacturing has been on the decline even as companies clamor for more talent in everything from blue-collar jobs to executive positions. Across all manufacturing sectors in the U.S., women constitute only about 24% of the durable goods manufacturing workforce. The proportion of women in leadership roles in manufacturing companies also lags behind other U.S. industries, a report from Deloitte Consulting LLP and the Manufacturing Institute noted.

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

Scioto County CTC is on the cutting edge of connecting students to their futures through relevant career technical education programs.
Partnering with business and industry to design and deliver programs that are results-driven and demonstrate a positive return on investment, Scioto County CTC programs provide students with the education and training necessary to be prepared for the job market. However, for our graduates to be competitive in the advanced manufacturing sector, our students need the training on cutting-edge equipment that will provide industry-recognized credentials. On our last two Career-Technical report cards administered by the Ohio Department of Education, we have received a letter grade of A in the areas of technical skill attainment, graduation rate, and prepared for success. Our staff has excelled at teaching and training our students. We are confident that with the addition of cutting-edge equipment, our existing staff will continue to earn the highest level of student achievement on the state report card. Scioto County, Ohio has a long history of manufacturing and a strong transportation infrastructure (rail, highway, river) to transport large quantities of raw materials and finished product and components affordably, while abundant and low-cost utilities keep production costs competitive. To support workforce needs, Scioto County CTC offer high-school, adult, and higher ed programs in industrial maintenance, CNC programming /operation, building property maintenance, carpentry, electricity, welding, engineering, auto technology and information technology. But no one in the region offers advanced manufacturing certification. Ohio is short 60,000 manufacturing workers for its advanced manufacturing workforce. (www.ohiohired.org). Yet, it is nearly impossible for a southern Ohio youth to receive advanced manufacturing certification because there are no programs within 100 miles. Scioto County CTC's customized training programs have created partnerships with local business and industry that benefit both the employer and students. All of the career technical programs offered at our school provide students with industry certifications, licensure, and/or college credit. Local employers continually hire our graduates to fill their staffing needs. Our students earning additional industry-recognized credentials will have a direct positive impact on our local job market and economic development. Our local economic development division (Southern Ohio Port Authority) advertises our school as the region's training center to entice potential business and industry to our region.

iv. List the specific indicators that you will use to measure progress toward your desired outcome.

These should be measurable changes, not merely the accomplishment of tasks. Example: Teachers will each implement one new project using new collaborative instructional skills, (indicates a change in the classroom) NOT; teachers will be trained in collaborative instruction (which may or may not result in change).

Long Term Outcome: Scioto County CTC students, in particular -female students- will significantly increase workforce and college readiness for in-demand advanced manufacturing career pathways. formative: (all student data include male/female breakdown) -Scioto County CTC teacher participation in training/earn credentials # industry credentials offered # college courses offered -equipment purchases -recruitment efforts - particularly those for female students -partners interested in hosting student intern/apprentices - # home schools offering adv manufacturing CTE courses - # students participating in MS career exploration (at home school & Scioto County CTC) - # students enrolled in Scioto County CTC adv manufacturing program -cost savings and reallocation per FIT summative: -Through the implementation of new curriculum in year one, our goal by June 30, 2017, is that Scioto County CTC will have at least 25% of its participating students earn additional credentials or certifications. In each subsequent year of the grant implementation phase, we will increase the number of students receiving additional credentials and certifications by 10% each year (FY 18 35%, FY 19 45%, FY 20 55%, FY 21 65%). -Scioto County CTC will meet or exceed the areas of nontraditional participation and nontraditional completion as set by the Ohio Department of Education (Office of Career-Technical Education Secondary Workforce Development performance targets). For FY16, our performance target for participation is 21.75% and completion is 18.75%. These targets are set by ODE each year. -By June 30, 2022, Scioto County CTC will have built capacity to sustain advanced manufacturing initiatives locally without additional income; as measured by combination of cost savings within project and re-allocation cost savings as described on FIT. Baseline is October 2015 as per grant requirements.

v. List and describe pertinent data points that you will use to measure student achievement, providing baseline data to be used for future comparison.

Long Term Outcome: Scioto County CTC students, in particular -female students- will significantly increase workforce and college readiness for in-demand advanced manufacturing career pathways. Each of the following data points will be disaggregated male and female: -Post-Program Placement in advanced manufacturing pathways -Industry Credentials in advanced manufacturing pathways -College Credit Plus (CCP) course work aligned to advanced manufacturing pathways - # of 9th and 10th graders participating in adv manufacturing CTE courses at home schools - # of MS students exposed to advanced manufacturing career exploration. Additionally, project will collect data on cost savings within project and re-allocation cost savings as described on FIT.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

The Project team will review relevant data bi-monthly as available. Target percentages were calculated for each year of the grant period, adjustments to training and support will be determined annually if targets are missed. Scioto CTC faculty will offer tiered support (through non-grant funded efforts) to students who are not on-track to complete credentials/college courses. Scioto CTC is contracting with an external evaluator at $37,500 which is 5.16% of project budget. This amount is reasonable given industry standards. Scioto CTC believes external evaluation is essential to ensure the distinct monitors and reports on fidelity of implementation, student achievement outcomes and cost savings. This outside support will also provide additional value because the evaluator will be able to recommend mid-course adjustments to improve results if needed.

b. Spending reductions in the 5 year forecast

i. List the desired outcomes.

Examples: lowered facility cost as a result of transition to more efficient systems of heating and lighting, etc.; or cost savings due to transition from textbook to digital resources for teaching.

ii. What assumptions must be true for this outcome to be realized?

Example: transition to “green energy” solutions produce financial efficiencies, etc.; or available digital resources are equivalent to or better than previously purchased textbooks.

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.
iv. List the specific indicators that you will use to monitor progress toward your desired outcome. 
*These should be specific dollar savings amounts. THESE MUST MATCH THE COST SAVINGS AS PROJECTED IN THE FINANCIAL IMPACT TABLE (FIT).*

v. List and describe pertinent data points that you will use to measure spending reductions, providing baseline data to be used for future comparison.

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

c. Utilization of a greater share of resources in the classroom

i. List the desired outcomes. 
*Example: change the ratio of leadership time spent in response to discipline issues to the time available for curricular leadership.*

ii. What assumptions must be true for this outcome to be realized? 
*Examples: improvements to school and classroom climate will result in fewer disciplinary instances allowing leadership to devote more time to curricular oversight.*

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, etc), or how these are well-supported by the literature.

iv. Please provide the most recent instructional spending percentage (from the annual Ohio School Report Card) and discuss any impact you anticipate as a result of this project. 
*Note: this is the preferred indicator for this goal.*

v. List any additional indicators that you will use to monitor progress toward your desired outcome. 
*These should be specific outcomes, not just the accomplishment of tasks. Example: fewer instances of playground fighting.*

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?

d. Implementing a shared services delivery model

i. List the desired outcomes. 
*Examples: increase in quality and quantity of employment applications to districts; greater efficiency in delivery of transportation services, etc.*

ii. What assumptions must be true for this outcome to be realized? 
*Example: neighboring districts have overlapping needs in administrative areas that can be combined to create efficiencies.*

iii. Describe any early efforts you have made to test these assumptions (pilot implementation, data analysis etc), or how these are well-supported by the literature.

iv. List the specific indicators that you will use to monitor progress toward your desired outcomes. 
*These should be measurable changes, not the accomplishment of tasks. Example: consolidation of transportation services between two districts.*

v. List and describe pertinent data points that you will use to evaluate the success of your efforts, providing baseline data to be used for future comparison. 
*Example: change in the number of school buses or miles travelled.*

vi. How are you prepared to alter the course of your project if assumptions prove false or outcomes are not realized?
10. Which of the following best describes the proposed project? - (Select one)

- [ ] a. New - Never before implemented
- [ ] b. Existing - Never implemented in your community school or school district but proven successful in other educational environments
- [ ] c. Replication - Expansion or new implementation of a previous Straight A Project
- [ ] d. Mixed Concept - Incorporates new and existing elements
- [ ] e. Established - Elevating or expanding an effective program that is already implemented in your district, school or consortia partnership

C) BUDGET AND SUSTAINABILITY

11. Financial Information: - All applicants must enter or upload the following supporting information. The information in these documents must correspond to your responses in questions 12-19.

   a. Enter a project budget in CCIP (by clicking the link below)

[Enter Budget]

   b. If applicable, upload the Consortium Budget Worksheet (by clicking the Upload Documents link below)

Upload Documents

   The project budget is entered directly in CCIP. For consortia, this project budget must reflect the information provided by the applicant in the Consortium Budget Worksheet. Directions for the Financial Impact Table are located on the first tab of the workbook. Applicants must submit one Financial Impact Table with each application. For consortium applications, please add additional sheets instead of submitting separate Financial Impact Tables.

726,234.00 12. What is the amount of this grant request?

13. Provide a brief narrative explanation of the overall budget.

Reasonable budget/scope: Scioto CTC does not have the equipment to teach the advanced manufacturing skills needed to fill the employment opportunities available. These investments will pay for themselves many times over in economic growth and retaining local industries. Needed equipment is not cheap, but at the same time we have received many in-kind donations. Equipment suppliers realize the need to support worker training programs. No staffing is needed, Scioto CTC will cross train current employees. In order to operationalize this plan, the attached budget information is submitted for your consideration:

   Salaries: Substitutes will be used for 30 days at $80 per day for a total of $2,400.00 (one time grant cost).

   Benefits: Retirement and Medicare for the 30 days is $372.00 (one time grant cost).

   Purchased Services: $54,860 Total The program will have evaluation during the implementation and sustaining years of $37,500 (multi-year contract (through 6/2022) allowable per guidance as evaluation is implementation cost); Professional development of IRViision instructor training of $5,000 (one time grant cost); Professional development for FANUC training of 4 days for $1,860 (one time grant cost). Vex student camps of $5,000 for robotics camps workshops for the first year to be train the trainer model (one time grant cost); Professional development expenses for staff to attend training away from the district for travel/lodging and meals $5,500 (one time grant cost). Supplies: Instructional supplies to be used in the implementation and training periods of $3,200 (one time grant cost). Capital Outlay: $665,402 Total Equipment for the project totals $622,223 and is broken down as follows:

   [Detailed list of expenditures]

   14. Please provide an estimate of the total costs associated with maintaining this program through each of the five years following the initial grant implementation year (sustainability costs). This is the sum of expenditures from Section A of the Financial Impact Table.

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<tr>
<td>e. Sustainability Year 5</td>
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</table>

15. Please provide a narrative explanation of sustainability costs.

   Sustainability costs include any ongoing spending related to the grant project after June 30, 2017. Examples of sustainability costs include annual professional development, staffing costs, equipment maintenance, and software license agreements. To every extent possible, rationale for the specific amounts given should be outlined. The costs outlined in this narrative section should be consistent and verified by the financial documentation.
Throughout the life of the grant the only area that will need to be sustained is that of the increases of the electricity for the use of the Robots and the insurance premiums. The majority The amount of the actual increases will not be known until after the first year of fully implementation of the program. Sustainable costs are estimated to be $3,000 per year (which we believe to be overestimated) for increases in electricity and property insurance premiums to power the robots that will be purchased and operated as a result of this grant. Though difficult to predict, these costs would cover the operation of the robots on a daily basis for a much longer time period than what the activities of the grant will require. This grant is heavy on equipment and professional development which are all part of the initial purchase and contracted service agreements. Equipment maintenance and software upgrades were also included in the initial purchase agreements as to lower any recurring cost and sustainability issues. Scioto CTC will share these resources with our existing Adult Education and Workforce Development departments in the evenings outside of regular school hours to extend the learning day and provide outside training. The fees that are generated from doing workforce adult training will be re-invested to maintain equipment and purchase any new equipment needed beyond sustainability period and to keep staff certified on future equipment and maintain any new software licenses that may be needed. While increased revenue can not be used for sustainability purposes, it should be noted that projected adult workforce training should generate in excess of $100,000 in additional revenue.

### 16. What percentage of these costs will be met through cost savings achieved through implementation of the program?

Total cost savings from section B of the Financial Impact Table divided by total sustainability cost from section A of the Financial Impact Table. If the calculated amount is greater than 100, enter 100 here.

17. Please explain how these cost savings will be derived from the program.

Applicants who selected spending reductions in the five-year forecast as a goal must identify those expected savings in questions 16 and 17. All spending reductions must be verifiable, permanent, and credible. Explanation of savings must be specific as to staff counts; salary/benefits; equipment costs, etc.

This project is revenue neutral, there is no identified cost savings.

### 18. What percentage of sustainability costs will be met through reallocation of savings from elsewhere in the general budget?

Total reallocation from section C of the Financial Impact Table divided by total sustainability cost from section A of the Financial Impact Table

Note: the responses to questions 16 and 18 must total 100%

19. Please explain the source of these reallocated funds.

Reallocation of funds implies that a reduction has been made elsewhere in the budget. Straight A encourages projects to determine up front what can be replaced in order to ensure the life of the innovative project.

The district will use $22,704 per year for reallocated funds from the hiring of a new teacher with the retirement of a teacher that is at the top of the salary schedule to sustain the grant. This reallocation of funds will cover the sustainable costs that are estimated to be $3,000 per district each year (which we believe to be overestimated) for increases in electricity and property insurance premiums to power the robots that will be purchased and operated as a result of this grant. Though difficult to predict, these costs would cover the operation of the robots on a daily basis for a much longer time period than what the activities of the grant will require. Most of the equipment will be using 110 wattage for electricity which should not require much additional pull of electricity for the equipment. The districts will not know for sure until after the grant implementation year and the first year of operation the extent of the actual increase in electricity or insurance premiums for the project.

### D) Implementation

20. Please provide a brief description of the team or individuals responsible for the implementation of this project, including other consortium members or partners.

This response should include a list of qualifications for the applicant and others associated with the grant. Please list key personnel only. If the application is for a consortium or a partnership, the lead should provide information on its ability to manage the grant in an effective and efficient manner. Include the partner/consortium members’ qualifications, skills and experience with innovative project implementation and projects of similar scope.

Enter Implementation Key Personnel information by clicking the link below:

Add Implementation - Key Personnel

For Questions 21-23 please describe each phase of your project including its timeline, and scope of work.

A complete response to these questions will demonstrate awareness of the context in which the project will be implemented and the time it will take to implement the project with fidelity. A strong plan for implementing, communicating and coordinating the project should be apparent, including coordination and communication in and amongst members of the consortium or partnership (if applicable). Not every specific action step need be included, but the outline of the major steps should demonstrate a thoughtful plan for achieving the goals of the project. The timeline should reflect significant and important milestones in an appropriate time frame.

21. Planning

a. Date Range

Mar 2016 July 2016

b. Scope of activities - include all specific completion benchmarks.

Upon award: media notification; board approvals/contracts signed; planning team designated; Recruit teachers for training; finalize student recruitment & evaluation plan; create Project Team meetings calendar for planning period to ensure all processes are in place for implementation; Sp/Su 2016: create plan of action; partnership development (local and statewide); staff curriculum and correlations to Career Tech competencies/ Industries Certification needs; determine teacher needs, curriculum needs, equipment needs and reassurance that facility space and electrical needs; Register instructors/ set-up instructor certification; Contact architect/maintenance supervisor to proceed
with renovations; Contact equipment vendors to identify equipment delivery schedules; Continue articulation agreements with Community Colleges for College Credit Plus; Initiate weekly meetings for Project Steering Committee; submit final evaluation plan to ODE; Quarterly project evaluation. Benchmarks to demonstrate success - equipment & supply purchases - evaluation plan created - board contracts approved - curriculum design documents - marketing and recruitment plan - Communication/key stakeholder engagement/consent from all required officers, governing bodies hold local celebrations and events with business partners to build deeper relationships, board/staff meetings to announce project; quarterly board/community updates; create marketing plan: Project Manager/Director weekly meetings coordinate project outcomes, ensure strong communication and capacity to manage scope of work. Monthly meetings with evaluator to monitor evaluation plan & project fidelity.

22. Implementation (grant funded start-up activities)

a. Date Range April 2016 to June 2022

b. Scope of activities - include all specific completion benchmarks

Sp/Su 2016: Kick-off comprehensive marketing campaign in southern Ohio; Continue lead instructor training; FANUC Certification Training; FANUC Certification CERT Cards delivered; Deliver VEX Training Equipment VEX Lead Teacher Two-Day Training; Initiate training for Motoman Robotics; Deliver STEM cart; Deliver/Install FANUC & Motoman Robotic Equipment; Fall/Wi 2016-17 Host open houses; VEX Lead Teacher Training; Finalize marketing and recruitment efforts; Planning meetings for summer camps; Plan summer PD; summer camp recruitment Sp/Su 2017 Finalize summer camps and PD; Conduct summer camps and professional development; Student recruitment for following year Benchmarks to demonstrate succes: - equipment & supply purchases - training participation - student attendance at summer camp - certifications issued - College Credit Plus courses completed Communication/key stakeholder engagement/consent from all required officers, governing bodies continue project coordination, marketing and communication activities and board reports as described in planning; administer and manage scope of work/ develop interdependent system of change. Project Director will coordinate Quarterly Project Steering Team meetings; SCCTC Teachers involved in decision making; annual surveys to determine project success; Board approves contracts and will receive quarterly reports from evaluator on progress; continue outreach with business/higher ed partners to build deeper relationships, Monthly meetings with evaluator to monitor evaluation plan & project fidelity.

23. Programmatic Sustainability (years following implementation, including institutionalization of program, evaluation and communication of program outcomes)

a. Date Range August 2016- June 2022

b. Scope of activities - include all specific completion benchmarks

A competency based educational model integrates pre/post assessments as embedded measurements for curriculum objectives that RAMTEC centers will assess with e-assessment management systems. 2016-2017: identify instructional competencies required for students in manufacturing pathways; pre-assess student knowledge and prescribe effective training based on the competencies required of the Advanced Manufacturing model being used; (on-going) formative assessments provide data analysis of both individual and class results that identify instructional areas that are weak and need additional teaching; post-testing will occur upon completion of the program and before industry certification tests are taken. 2016-2022: Evaluator will assess: Training effectiveness as a result of assessment system; Performance and satisfaction data collected from students and employers - business oversight, and employer evaluations of student interns and adult employees who are graduates and trained in one of the RAMTEC centers. Benchmarks (disaggregated by gender): graduation, community college credits, passage of industrial certifications, and job placement and students planning to pursue further education, training, or employment; cost savings and cost reallocation per FIT. Administer and manage scope of work/ communication/key stakeholder engagement/consent from all required officers, governing bodies Steering Committee meet quarterly thru 2022; META - outcome reporting thru 2022; semi-annual board reports; SCCTC provide META access to student data for analysis- include project related surveys/ relevant data to effectively access-analyze data. develop interdependent system of change. Specific needs of manufacturers will be continually assessed and responses from the manufacturers will be used to adjust instruction and to improve student learning. SCCTC will network with other RAMTEC centers to share/learn best practices to enhance statewide manufacturing centers’ instruction.

E) SUBSTANTIAL IMPACT AND LASTING VALUE

24. Describe the expected changes to the instructional and/or organizational practices in your institution.

The response should illustrate the critical instructional and/or organizational changes that will result from implementation of the grant and the impact of these changes. These changes can include permanent changes to current district processes, new processes that will be incorporated or the removal of redundant processes. The response may also outline the expected change in behaviors of individuals (changes to classroom practice, collaboration across district boundaries, changes to a typical work day for specific staff members, etc.). The expected changes should be realistic and significant in moving the institution forward.

Please enter your response below:

Scioto CTC is committed to changing the way we teach students, recruit students and connect with industry partners. The greatest change is in our focus on recruiting female students who are currently underrepresented in the field - to be exposed to a career pathway in Advanced Manufacturing to help drive more interest to students to enroll in RAMTEC certification programs. By creating an all female introductory course, our young ladies will be connected to strong positive female role models working in advanced manufacturing. This will shift the culture of women’s roles in industry and ultimately create a better balance between men/women in Southern Ohio advanced manufacturing fields. Key instructional changes: Scioto CTC instructors will teach in a blended manner using E-learning materials with real life simulators and offer students authentic activities and hands-on learning where they build & operate robots, design & build parts and share these ideas with students across Ohio at other RAMTEC centers. Our students’ hands on, real life activities in the classroom will use the identical equipment used in Industry. We currently offer post-secondary coursework options for students, but through this project we will significantly expand those opportunities because our 7-10th grade instructor will be able to offer Carnegie Mellon University Robotics college credit. Key organizational changes: Since our teachers will be cross trained and certified with relevant industry credentials they can integrate the work into career
pathway instruction in Welding, Engineering & Advanced Manufacturing, Automotive, Precision Machining, Computer Networking, and Agriculture Mechanics. As a result, our students will now be able to earn certification in welding, robotics CNC and industrial maintenance through existing programs. RAMTEC center equipment will allow our students to be cross trained in a variety of advanced manufacturing skills that offer both stackable certifications and college credits. This is a completely new way of operating for our community. While industry and post secondary partners have always been involved in our advisory boards, they will have deeper engagement to ensure the RAMTEC center is always operating using current industry guidelines and using equipment identical to that needed by Southern Ohio’s current and future job markets.

25. Please provide the name and contact information for the person and/or organization who will oversee the evaluation of this project.

Projects may be evaluated either internally or externally. However, evaluation must be ongoing throughout the entire period of sustainability and have the capacity to provide the Ohio Department of Education with clear metrics related to each selected goal.

Please enter your response below:

META SOLUTIONS Contact information: Tad Douce, Vice President of Innovation and Adult Learning at META Solutions 2100 Citygate Drive Columbus, OH 43219 614-473-8300

26. Describe the overall plan for evaluation, including plans for data collection, underlying research rationale, measurement timelines and methods of analysis.

This plan should include the methodology for measuring all of the project outcomes. Applicants should make sure to outline quantitative approaches to assess progress and measure the overall impact of the project proposal. The response should provide a clear outline of the methods, process, timelines and data requirements for the final analysis of the project’s progress, success or shortfall. The applicant should provide information on how the lessons learned from the project can and will be shared with other education providers in Ohio. Note: A complete and comprehensive version of the evaluation plan must be submitted to ODE by all selected projects.

SCCTC is partnering with META to provide an in-depth program of research and evaluation in order to produce key information about the effectiveness of advanced manufacturing implementation how it relates to the student outcomes identified. A systematic research process will be employed with both an internal project team and external evaluator to work on the program evaluation. The evaluation will use both qualitative and quantitative data collection and analysis. A competency based educational model integrates pre/post assessments as embedded measurements for curriculum objectives that RAMTEC centers will assess with e- assessment management systems. 2016-2017: Identify instructional competencies required for students in manufacturing pathways; pre-assess student knowledge and prescribe effective training based on the competencies required of the Advanced Manufacturing model being used; (on-going) formative assessments provide data analysis of both individual and class results that identify instructional areas that are weak and need additional teaching; post-testing will occur upon completion of the program and before industry certification tests are taken. 2016-2022: Evaluator will assess: Training effectiveness as a result of assessment system; Performance and satisfaction data collected from students and employers - business oversight, and employer evaluations of student interns and adult employees who are graduates and trained in one of the RAMTEC centers. Benchmarks (disaggregated by gender): graduation, community college credits, passage of industrial certifications, and job placement and students planning to pursue further education, training, or employment; cost savings and cost reallocation per FIT. Final analysis of progress, success or shortfall Ongoing formative annual evaluation submitted to the Board of Education and the ODE will continue beyond the grant period and will conclude with a summative program evaluation at the end of the 5 years. All reports will adhere to national standards of confidentiality protecting any personal information. Project leaders will submit proposals to share progress at all state conferences and forums. Project team will communicate progress quarterly to Board of Education and community. Sharing lessons learned across Ohio in addition, the evaluation will consider the impact of the project as it relates to the conditions for sustainability and expansion across the state.

27. Please describe the likelihood that this project, if successful, can be scaled-up, expanded and/or replicated. Include a description of potential replications both within the district or collaborative group, as well as an estimation of the probability that this solution will prove useful to others. Discuss the possibility of publications, etc., to make others aware of what has been learned in this project.

The response should provide an explanation of the time and effort it would take to implement the project in another district, as well as any plans to share lessons learned with other districts. To every extent possible, applicants should outline how this project can become part of a model so that other districts across the state can take advantage of the learnings from this proposed innovative project. If there is a plan to increase the scale and scope of the project within the district or consortium, it should be noted here.

SCCTC will be the 1st advanced manufacturing training center in Southern Ohio - but we anticipate it will not be the only one for very long. This project is not simply replicating the RAMTEC advanced manufacturing training model as others have already done. SCCTC is adapting it specifically to the needs of Southern Ohio businesses and the economic development plans in Scioto and surrounding counties. SCCTC is also adding a focus on increasing participation of female students who are vastly underrepresented in advanced manufacturing. Each of these adaptations will exponentially increase the likelihood of other counties and joint vocational school districts replicating this project. With Ohio’s immediate need for 60,000 workers in advanced manufacturing, our project expands the RAMTEC network and builds exactly what Southern Ohio industry needs. Other area CTC/JVS organizations have expressed interest in learning how to expand the work in their feeder schools. The greatest challenge for replication lies in the equipment costs to provide students training on the same equipment used by industry professionals. Once an organization secures the funds for equipment and training, the rest of the work is highly sustainable. In fact, by partnering with adult workforce education, the equipment can be used nearly 12 hours per day, paying for itself quickly and bringing in revenue that can be used when equipment needs replaced or is no longer industry standard. The Ohio Association of Community Colleges stated, "We must create a network of education, training, and research to develop a highly skilled workforce”. SCCTC joins the 9 other RAMTEC centers across Ohio to create a true statewide network of advance manufacturing innovations that offer the training equipment and facilities to meet the needs of Ohio’s Manufacturing community. RAMTEC has successfully done what no other facility in the United States has succeed in doing by bringing together Industry and Education partnerships with the largest suppliers of equipment to Industry. These companies have worked with RAMTEC to offer Industry certifications for Robotics, CNC Machining, Welding, Industrial Maintenance, and Mechatronics under one roof. These companies offer our project and other RAMTEC centers financial support and proprietary curriculum to replicate the RAMTEC centers across Ohio. Possibility of publications and Plans to share results. SCCTC and partners plan to issue a white paper about the importance of engaging females and other underrepresented youth in advanced manufacturing. In addition, all external
evaluations will be available for review. SCCTC will also submit proposals to present our project at conferences such as Association for Career and Technical Education (state and national), Ohio Capital Conference, Association of Career and College Readiness Organizations.

By virtue of applying for the Straight A Fund, all applicants agree to participate in the overall evaluation of the Straight A Fund for the duration of the evaluation time frame. The Governing Board of the Straight A Fund reserves the right to conduct an evaluation of the project and request additional information in the form of data, surveys, interviews, focus groups and other related data on behalf of the General Assembly, Governor and other interested parties for an overall evaluation of the Straight A Fund.

PROGRAM ASSURANCES: I agree, on behalf of this applicant, and any or all identified consortium members or partners, that all supporting documents contain information approved by a relevant executive board or its equivalent and to abide by all assurances outlined in the Straight A Assurances (available in the document library section of the CCIP).

Stan J. Jennings Superintendent Scioto County Career Technical Center 12/1/2015
No consortium contacts added yet. Please add a new consortium contact using the form below.
<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
<th>Telephone Number</th>
<th>Email Address</th>
<th>Organization Name</th>
<th>IRN</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Charles</td>
<td>Speelman</td>
<td>740-361-2910</td>
<td><a href="mailto:cspeelman@tririvers.com">cspeelman@tririvers.com</a></td>
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<td>065268</td>
<td>2222 Marion Mount Gilead Rd, Marion, OH, 43302-8914</td>
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<td>John</td>
<td>Burkhart</td>
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<td>Integrated Systems Technologies (IST)</td>
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<td>150 Industrial Drive, , Lexington, Ohio, 44904</td>
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<td>Kevin</td>
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<td>General Electric</td>
<td></td>
<td>1200 Jaybird Rd.,, Peebles, OH, 45660</td>
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<td>Brent</td>
<td>Newsom</td>
<td>740-395-2474</td>
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<td>Bellisio Foods</td>
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<td>100 East Broadway Street , , Jackson, OH, 45640</td>
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<tr>
<td>Oak</td>
<td>Williams</td>
<td>877-741-8806</td>
<td><a href="mailto:oakw@infra-metals.com">oakw@infra-metals.com</a></td>
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<td>Tom</td>
<td>Kayser</td>
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<td>Douce</td>
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<td>META Solutions</td>
<td></td>
<td>2100 Citygate Drive, , Columbus, OH, 43219</td>
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<tr>
<td>First Name</td>
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<td>Responsibilities</td>
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<td>Prior Relevant Experience</td>
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<tr>
<td>Kyle</td>
<td>Copley</td>
<td>Secondary Principal</td>
<td>Coordinates all district level compliance regarding secondary staff and students and. He will have a knowledge of the program alignment and crosswalk opportunities that exist in aligning training. Mr. Copley will sit on the core planning team and provide guidance to the team on opportunities to support and expand project based learning for students and develop new opportunities for students to be engaged and innovate.</td>
<td>Mr. Copley has been the secondary principal at SCCTC since 2009 and previously served as assistant principal since 2005. Mr. Copley was also a classroom teacher from 2001-2005. With over 10 years experience in career-technical education, Mr. Copley has seen excellent scores on the Ohio Department of Education's State Report Card.</td>
<td>As secondary director, he oversees early placement, college credit plus, internships and job shadowing, career counseling and career readiness. His strong ties with business and industry will align to the goals of the program.</td>
<td>BS- Criminal Justice-Ohio Un BS- Education- Ohio Un MS-Ed Leadership- Un of Dayton Supt License- Kent State Un.</td>
</tr>
<tr>
<td>Josh</td>
<td>Shoemaker</td>
<td>Central Office Administrator</td>
<td>Josh Shoemaker will handle project oversight and partnership development. He will ensure the project aligns with school/district's overall mission and improvement plans. He will manage project budget, conduct walk-throughs and observations to continually provide formative and summative feedback for staff regarding implementation.</td>
<td>Mr. Shoemaker has 12 successful years as an educator and administrator in Ohio public schools. He began his role of central office administrator at SCCTC in 2014. For the district, Mr. Shoemaker oversees grant writing, human resources, CCIP, Perkins compliance, teacher licensure, hiring, and all CTE programs of study. In 2015, Mr. Shoemaker was assigned as supervisor for all satellite programs and middle school.</td>
<td>At SCCTC, Mr. Shoemaker writes and submits all programs of study for all CTE programs for approval from the Ohio Department of Education. Mr. Shoemaker is also over the District's CCIP and Perkins compliance. He will ensure the the program is in compliance in all aspects of the grant Has spent over a year working with RAMTEC learning about its advanced</td>
<td>Bach. of Science in Ed.- Shawnee State University Master's Deg in Educational Leadership- Ohio Un. Principal/Supt. License- Ohio University</td>
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of blended instructional model. He will work closely with He will facilitate Project Team which includes SCCTC faculty, partners and administration. These meetings will focus on monitoring progress and reporting outcomes. Josh will continue to reach out to new partners in Ohio to provide new opportunities and experiences for students.

| Tad Douce | META Solutions - Vice President of Innovation and Adult Learning | External evaluator - coordinate all evaluation activities for project | VP of Innovation and Adult Learning - define, communicate and drive overall strategic and growth agendas for META's Education Solutions Division. This includes analyzing industry and market trends, evaluating the needs of the customer, and aligning stakeholders for the division's future business/initiatives. Works with other leaders to define and champion business commitments and priorities to guide internal decision making. Bring a leadership and management experience to hire, coach, and develop the team for Adult Learning, Professional Development and Creative Services. Creates a culture that celebrates success, professional growth and will support the communication and implementation of CTE programming. | Tad Douce received 2015 Tri-Rivers Lautenslager Distinguished Service Award recognizing his many contributions, including those to RAMTEC. Tad Douce has been instrumental in the continuous development of the Tri-Rivers Engineering programs and RAMTEC facility. Since the mid-1990's he has participated in and helped develop the River Valley Middle School as a leader in technical education in Ohio. Tad created state 4-H Lego Robotics program books I and II and first came up with the idea to host the Society of Manufacturing Engineers Educational Foundation’s National Robotics BS- Technology Education |
| Ritch Ramey | RAMTEC Coordinator | Coordinate the development and implementation of the statewide RAMTEC Advanced Manufacturing and Robotics training program. Oversee the state wide advisory committee. Collaborate with RAMTEC facility and industrial partners to implement and develop professional development and certification | Certified Project Lead the Way (PLTW) Digital Electronics, Computer-Integrated-Manufacturing (CIM) and Engineering Design and Development instructor | Developed Marion Area Tech Prep Partner's nationally certified Project Lead the Way Engineering program for nine area schools. Successfully awarded more than $800,000 for STEM grants. Director of Outreach for the SME EF National Robotics Challenge STEM grant Coordinator for TRECA DA Ohio State Event Coordinator for BS - Adv Tech Education (BGSU); AAS in Engineering (Marion Technical College) Ohio Vocationally Certified Engineering instructor | 10 |

Without his constant support, friendship and collaboration there would be no National Robotics Challenge (NRC), RAMTEC Vex Robotics League and more than likely no RAMTEC. He was one of the leaders in the community that helped us create the vision. The highly successful RAMTEC Vex Robotics League and the RAMTEC Advanced Manufacturing & Engineering programs have grown into national prominence from this contest.
programs for instructors. Direct, develop and implement student work based robotics camps. Develop and oversee certification process for RAMTEC facilities coordinators and staff.

Vex Robotics contests
RAMTEC Advanced Manufacturing and Engineering instructor
Current
RAMTEC Tri-Rivers Career Center Coordinator
Marion Technical College Computer-Aided-Design (CAD) Computer-Numerically-Control (CNC) Digital Electronics, Blueprint Reading and Robotics instructor
RAMTEC Robotics League coordinator for 81 teams from 11 regional schools.
Maintenance Technician for Worthington Industries CAD Technician for Fairfield Engineering, Truss-Joist Karlesberger & Associates and Guardian Glass - CAD Operator
Created Professional development for 80 area engineering, math and science teachers in collaboration with Honda, Texas Instruments, Developed training programs for Ohio teachers for Vex Robotics BOEBot Robotics and Computer-Aided-Drafting for technical
<table>
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<tr>
<th>Name</th>
<th>Title</th>
<th>Experience</th>
<th>Education</th>
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<tbody>
<tr>
<td>Michael</td>
<td>Wells</td>
<td>Assist with the coordination, development and implementation of the statewide RAMTEC Advanced Manufacturing and Robotics training program. Serve on the statewide advisory committee. Collaborate with RAMTEC facility and industrial partners to implement and develop professional development and certification programs for instructors. Direct, develop and implement student work based robotics camps.</td>
<td>Mr. Wells is the Industrial Maintenance instructor at SCCTC. He holds a teaching license in the areas of: industrial maintenance and repair, electrical trades, and building &amp; property maintenance. He has a degree in electro-mechanical engineering from Shawnee State University. Mr. Wells has served as the Industrial Maintenance instructor since 2011. With additional FANUC and RAMTEC training, Mr. Wells will be used as an instructor in the advanced manufacturing program. He has previous experience in industry having worked over 25 years as a maintenance supervisor in construction and facilities operations for the Ohio Department of Corrections. His strong ties with business and industry will align to the goals of the program.</td>
</tr>
<tr>
<td>Larry</td>
<td>Hickman</td>
<td>Coordinates all district level compliance documentation and works closely with the fiscal office to insure the local district director has a work knowledge of the program alignment and crosswalk opportunities that exist in aligning training. Mr. Hickman will sit</td>
<td>Highly skilled school leader that currently serves as the State President of Ohio’s largest Career Tech organization (Ohio ACTE). Mr. Hickman has 28 years in CTE and has been recognized for his innovation and ability to develop programs meeting the needs of all students. Mr. Hickman was a member of the planning and design team that build the first RAMTEC center.</td>
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Charles Speelman  
Tri Rivers CTC Superintendent  
He will be responsible for the scheduling of the quarterly and bi-annual advisory meeting and oversee the data collection of the performance measures.

For the past two year Mr. Speelman has led the vision to build the current RAMTEC center located at Tri-Rivers Career Center in Marion, OH. He also led the district construction team, which served as the construction managers for the project. The project came in under budget and on time and has been identified as a "best practice" training site by many of the manufacturing partners.

Mr. Speelman has over 12 plus successful years as a superintendent in Ohio public schools. In 2005 the district in which he was superintendent for the previous four years was named one of the top ten most improved school districts in the state by ODE, based on the previous two year performance measures. He was recently name as one of the board of directors on the Ohio Association of Career Technical Superintendents.

BS/MS Degrees  
Principal/Supt Licensure

John Burkhart  
President, IST-OHIO  
Mr. Burkhart's responsibility is to oversee the RAMTEC partnerships with industry partners. He will coordinate the working relationships with FANUC Robotics, FANUC CNC, Motoman Robotics, Allen Bradley, Parker Hannifen and Lincoln Electric to ensure all training needs.

Mr. Burkhart has been working with Ohio's State Department of Adult & Career Technical Education for over 25 years. He has correlated and performed skills needs analysis on equipment and curriculum needed to operate career pathway programs across the state. Mr. Burkhart has been a past Career & Adult Education Hall of Fame inductee as well as

Mr. Burkhart has worked in the past with the Ohio Department of Adult & Career Technical Education staff to help correlate skills and competencies to Ohio's ITWorks program. The ITWorks program is a very comprehensive program to address Computer Web
| Ryan Keaton | Engineering & Science Technologies Instructor-Scioto County CTC | Coordinate the development and implementation of the statewide RAMTEC Advanced Manufacturing and Robotics training program. Oversee the state wide advisory committee. Collaborate with RAMTEC facility and industrial partners to implement and develop professional development and certification programs for instructors. Direct, develop and implement student work. |
| Bachelor of Science in Industrial Engineering Technology from Morehead State University. Vocationally Certified Engineering instructor and Certified Project Lead the Way (PLTW). Since 2009, has been PLTW engineering instructor at SCCTC. Background in robotics and curriculum, CNC, and Vex equipment. Holds a professional engineering (technology & design) and engineering science license. |
| Mr. Keaton has served as an engineering instructor since 2009. Current and prior PLTW curriculum has included robotics, CNC, and VEX equipment. With additional FANUC and RAMTEC training, Mr. Keaton will oversee the advanced manufacturing program. He has previous experience in industry as a engineering construction technician, surveying crew chief, and quality control. |
| BS- Industrial Engineering Technology- Morehead State University Professional License- Engineering Technology/Engineering Science | 50 |
based robotics camps. Coordinate and oversee certification process for SCCTC staff.

inspector. His strong ties with business and industry will align to the goals of the program.